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ABSTRACT

The major goal of the Baltimore County (Maryland) career education project (1975-76) was to strengthen the career education programs in fifteen schools, grouped into five clusters, through leadership training programs and through the development of linkages within and among schools and between the schools and the community. Each of the five clusters included one senior high school, one of its feeder junior high schools, and a feeder elementary school. A corps of leaders (cluster council) in each of the fifteen schools was created to carry out the objectives of the project. The major product of the one-year effort was the development of an implementation and linkage guide for school staffs. In assessing project effectiveness, the evaluator concluded that (1) the majority of the fifteen participating schools had created school leaders in career education; (2) institutes conducted for school staffs by three industries were considered very effective; (3) mini-resource centers of career education materials were established well throughout the project schools; and (4) a well designed, comprehensive guide for infusing career education through cluster councils was developed. The one objective not fully met was providing opportunities for school staffs to articulate with their feeder schools. Overall, the evaluator concluded that the project enhanced career education efforts throughout the system. The fifteen cluster councils were involved with 397 teachers who infused career education concepts and ideas to more than 10,000 students. (MF)

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AN EVALUATION OF THE BOARD OF EDUCATION OF BALTIMORE COUNTY CAREER EDUCATION PROJECT

Creating New Groups of Human Resources for Career Education Through Strengthening Linkages Within and Among Schools

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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INTRODUCTION

The Board of Education of Baltimore County contracted with Policy Studies in Education (PSE) in the fall of 1975 to perform a third-party evaluation of the Baltimore County Career Education Project funded for the 1975-1976 school year by the Office of Career Education of the United States Office of Education.

The primary goal of the Project was to strengthen Baltimore County's Career Education Program in 15 schools, grouped into five clusters, through leadership training programs and through the development of linkages within schools, among schools, and between the schools and the community. Each of the five clusters included one senior high school, one of its feeder junior high schools, and a feeder elementary school. Among its many objectives, the Project held itself accountable for developing a corps of leaders in career education from each of the 15 schools, for increasing the relationship between school and community through business/industry/education institutes, for fostering career education implementation through mini-resource centers in each school, for providing opportunities for school staff to articulate with their feeder schools, and for identifying and compiling procedures and materials found most effective for increasing teacher use and student learning in the participant schools. Five cluster aides were selected and trained to service each cluster of schools. The major product of the one-year effort was the development of an implementation and linkage guide for school staff and administrators.

In consultation with the Project staff, it was decided that PSE's evaluation would include both process (or formative) and product (or summative) activities. Due to limitations in resources available for evaluation, the

identification of evaluation tasks for which PSE would be responsible were those which PSE was best qualified and most experienced to carry out. It should be noted that the Project, as specified in its proposal, was also reviewed by the Baltimore County Board of Education Office of Research.

The following report includes a description of the procedures carried out by PSE to measure the effectiveness of the Baltimore County Project, as well as the findings and conclusions arrived at by the evaluation staff. The three major tasks carried out by PSE were: 1) to measure whether or not participant members of the cluster school staffs exhibited an increase/change in their knowledge of, attitudes toward, and practice/use of career education activities, 2) to measure the effectiveness of a business/industry/education institute designed and carried out by the Project staff, and 3) to draw conclusions about the Project's influence and success based on interviews with and observation of participating school staffs by the evaluators.

ASSESSMENT OF SCHOOL STAFF KNOWLEDGE OF, ATTITUDES TOWARD, AND PRACTICE OF CAREER EDUCATION

The immediate target population for the Baltimore County Project was members of the school staffs in the 15 cluster schools who agreed to be participants in the year-long effort. For that reason, one of the major evaluation activities was to assess differences in their knowledge of, attitudes toward, and practice of career education, on a pre-test/post-test basis from November, 1975, to June, 1976. That is, the Baltimore County Project focused on faculty members, and therefore, most of the eight objectives held by the Project dealt with the effect Project activities would have on changing the behavior of these participants. To measure these changes, PSE developed and analyzed a staff questionnaire, administered before the program was initiated and after it had been in operation for approximately seven to eight months.

Development of Assessment Instrument

PSE staff met with the Project Director and her staff early in the fall of 1975 to identify the objectives the Project held for itself in terms of faculty changes. PSE reviewed hundreds of possible items, representing major career education characteristics, goals, objectives, and discussed with the Project Director those which would be most appropriate for measuring what the Project intended to accomplish. In some cases, items were accepted as they were, but many were modified to better represent the Baltimore County effort, and some were added to represent accurately the specific emphases of the Project. A pilot test version of the assessment instrument was then prepared by PSE and included items to measure the following major areas:

- the participants' former and current career education training--degree, scope, usefulness, etc;
- the participants' familiarity/understanding of career education and career development;
- the participants' understanding of the relationship between career education and curriculum change;
- the participants' awareness and familiarity with career education instructional goals;
- the participants' understanding of his/her role in career education;
- the participants' awareness of and use of career education instructional materials; and
- the participants' attitude toward career education.

PSE pilot tested the instrument with a 10% sample of the participants, with a requirement that at least one participant in each of the 15 schools be a pilot test respondent. The instruments were administered by the Project staff and returned to PSE for scoring and analysis. Based on the results, PSE eliminated the non-discriminating items and produced a final version which could be administered immediately.

Sample Selection

The pre-test was administered in November, 1975, to 95 cluster school participants. (The Project intended to affect 150 faculty members but at the time of this early administration, 95 participants had been identified.) The post-test, administered in June, 1976, was completed by 148 cluster school participants. PSE decided to collect responses from all participants identified, both at the pre-test and post-test administrations, rather than to sample the population since the total number was small enough to afford total involvement for the purposes of evaluation.

Findings

The findings presented below are presented according to the seven areas of concern in the staff questionnaire. For each, results will be presented and judgments will be made about the degree and direction of change between pre-test and post-test administrations.

In order to understand and take into consideration background influences on the respondents' answers to the questionnaire, a number of questions were asked in regard to their current and former work. Data gathered from these questions were as follows:

- Nearly three quarters of the respondents were teachers. The remainder included, in order of frequency, guidance counselors, administrators, and librarians.

- There were more respondents who taught or came in contact with students in grades 12, 11, and 10 than in the earlier grade levels. Next in frequency were those who were associated with students in grades 9, 8, and 7, and finally those associated with students in the elementary grade levels.

- Respondents who were classroom teachers at the secondary level most often taught social sciences, science, mathematics, and language arts/reading/English. On the other hand, those respondents who taught elementary school were involved primarily in self-contained classroom environments.

- Close to 60% of the respondents have worked in the Baltimore County School District from three to ten years, while close to 30% have worked there more than ten years and about 10%

have worked there less than three years.

- In terms of the number of part-time or full-time jobs respondents have held outside the field of education, which might have an influence on their knowledge of and attitudes toward the entire world of work, about one-third of the respondents said they had had five or more such jobs, while only about 10% said they had never worked outside the field of education.

In summary, the respondents to the staff questionnaire were predominantly teachers at the secondary level who have been with the school district for a number of years and who have had experiences in the world of work outside the field of education. That is, the responses which are reported below come from individuals who perhaps understand many realities and characteristics of various jobs and careers and who deal with students who are at the point in their lives when career decisions are beginning to be made.

Career Education Training

Whereas the pre-test respondents were split in terms of their participation in training (about half said they had not and about half said they had), approximately 85% of the post-test respondents had participated in training, an increase of about 35% during the Project year. When asked to describe the types of training in which they participated, most of the respondents pointed to workshops, followed by courses at near-by institutions and then trips and visits and lectures. More than 90% of those respondents felt that the in-service training they had received was useful. In terms

of the amount of training they had received, about half had received six or fewer hours of training, while the remainder had had seven or more hours. Nearly 60% of the respondents felt that the training they had received was too little in terms of what it was they were asked to do as a result. Nearly 40% of the respondents said that the training they had received had a great influence on the extent to which they incorporated career education into their roles. When asked what, in addition to training would be most useful, most of the respondents pointed to: availability of teacher-made curriculum units and/or lessons, availability of commercial materials, and a list of community resource persons.

Familiarity with Career Education

To determine whether or not the Baltimore County Career Education Project in 1975-76 had influenced the respondents' familiarity with career education, a number of substantive or content questions were asked about what career education is and what some of its important characteristics are. For example, the questions covered the concept of occupational clusters, the eight elements of career education, stages of career education programs, infusion, and tools for carrying out career education such as the Occupational Outlook Handbook.

The results showed that pre-test respondents and post-test respondents did not differ significantly in the way they answered the questions between the two administrations. In some areas, there was little change, since respondents began the year knowleable about the specific topic. In a number of areas, however, their need for more information and understanding of the areas questioned was shown in both testing periods. Specifically, the respondents tended to have a good understanding of occupational clusters

and the specific occupations that matched such clusters, a good understanding of the infusion process in career education, and full knowledge of the "elements" of career education. But they were less able, at the beginning as well as at the end of the year, to identify phases of career education across various grade levels, information provided by the Occupational Outlook Handbook (one sample of a career education reference product), and multiple ways in which the community can contribute to a career education program.

Career Education and Curriculum Change

Overall, the respondents showed positive change in terms of their understanding of the relationship between career education and the existing curriculum. More post-test than pre-test respondents believed that career education should be taught through material infused into the entire classroom curriculum, more believed that career education methods do not differ from those used to teach regular school subjects, and more saw themselves and other teachers as important in helping students learn about the world of work. To emphasize the latter conclusion, whereas pre-test respondents did not rank themselves highly in terms of their influence on student learning, post-test respondents saw themselves as significantly more important in conveying necessary information--more important, in fact, than the mass media, friends of students, employers and workers, or other students. The data in this area also show that teachers had better expectations of the future of the career education program in their schools at the end of the year than they did at the start. More respondents felt that the program would be expanded and fewer thought that it would remain at about the same level of activity.

Awareness and Familiarity with Career Education Instructional Goals

The results in this area were also positive. Post-test respondents were more knowledgeable about Baltimore County's development and adoption of a definition for career education and more familiar with the district's development and adoption of career education instructional goals for students; at least twice as many post-test as pre-test respondents were either "very familiar" or "familiar" with these instructional goals.

Respondents' Role in Career Education

From 14 possible roles listed, including "uncertainty about their role", three of the four most frequently mentioned were identical at both pre-test and post-test times. The three were: reviewing and selecting from existing career education materials, assisting teachers in their schools or school system in career education, and encouraging staff members to implement career education.

In terms of the amount of time respondents devoted to career education instructional activities, the Project had a definite impact on their behavior. Whereas about one-third of the pre-test respondents spent from one to five hours per week on career education, almost two-thirds of the post-test respondents spend one to five hours per week. In terms of the career education topics they had introduced to their students, there was some stability found in the responses. The three top-ranking topics at both administrations were identifying interests, aptitudes, values, etc.; study of job information (requirements, rewards, duties, responsibilities, etc.); and setting personal goals. These three ranked higher than such topics as making career decisions, study of career clusters, study of the economic system, how to prepare a resume, application form, etc.

A number of questions were asked about visitors/speakers the respondents had invited to their classrooms and how many visits were made by the respondent and students to places where work being performed could be observed (for example, places where goods were sold, products were made, etc.). In both instances, there was no change in the amount of activity taking place in these two areas; the activity level at both times was relatively modest in that about half of the respondents said they had had no speakers and about half of the respondents said they had not taken trips to observe work being performed.

Awareness and Use of Career Education Instructional Materials

The pre-test and post-test respondents were equally aware of the location of career education instructional materials in that nearly three-quarters of the respondents indicated that such materials were located at a central location within their school building and a similar percentage indicated that the materials were located at a central location within the school system. Less than 10% of the respondents at both times said that materials were placed permanently in their classrooms.

A specific list of materials was provided to the respondents in order for them to indicate which of the materials they knew were available to them and which of the materials they had used. The list included such materials as curriculum guides, career education lessons, audio-visual products, catalogues of community speakers, information about available jobs, and so on. In terms of their knowledge of the materials' availability, the respondents at both administrations were most aware of curriculum guides, audio-visual products, bibliographies of career edcuation materials, and specific career education reference materials such as the DOT. They were least aware of catalogues of community speakers, catalogues of

community trips, and information about available jobs. In terms of what was used by the respondents, the most popular material cited at both administrations was audio-visual products. Next, they cited the list of goals and objectives.

In terms of the degree of use of the materials, the data show that a much larger percentage of the respondents used a larger number of materials at the end of the year than they reported having used during the preceding year.

Attitude Toward Career Education

Thirty-two statements reflecting various attitudes toward career education were included in the staff questionnaire. For each statement, the respondents were asked to indicate whether or not they agreed or disagreed with the statement or had no opinion about it.

For 24 of the questions, or 75% of the total number, the respondents began and ended the year with positive feelings. That is, they either agreed or disagreed with statements which the project staff wanted them to agree or disagree with and did not change their opinion during the year. This kind of strong endorsement toward career education is not an unusual finding for PSE. In many other studies, including one that involved over 15,000 participants in six districts across the country, we found a similar pattern of agreement and endorsement. We interpret this as a fundamental belief on the part of the respondents in the basic tenets of career education. We find that there is little convincing that needs to be done in terms of many career education characteristics. The following sample of the 24 statements which the Baltimore County staff fully endorsed is presented below.

More than 80% of the respondents believed that "a student's choice of career can be changed by career education in school."

More than 90% of the respondents believed that "school should help individuals establish their career plans."

Nearly 90% of the respondents felt that "school should prepare individuals for all of their future roles--family member, active citizen, productive worker, and consumer of leisure activities."

Approximately 66% of the population believed that "the quality of education would be raised by an emphasis on jobs and work."

About 75% of the respondents believed that "students should have several work experiences--volunteer or for pay--before they leave school."

More than 80% of the respondents believed that "the career education program should be continued next year in their district."

More than 80% of the respondents felt that "career education was an important element of their role."

However, four of the 32 items did elicit different responses over the course of the year in a desirable direction. Whereas over 40% of the respondents agreed or strongly agreed that "high school students should received school credit for any work experience, both paid and unpaid" during the fall pre-test period, more than 60% of the respondents agreed with this statement during the post-test administration. Also, only 50% of the pre-test respondents agreed or strongly agreed that "career education should be available to all students from kindergarten through grade twelve" while nearly 90% responded similarly on the spring post-test fall pre-test. In response to the statement that "teachers must first develop their career education materials in order to infuse career education into the regular curriculum," 20% more teachers disagreed or strongly disagreed at the end

of the year with the statement than at the beginning of the year. And, again 20% more teachers agreed or strongly agreed that they "were capable of implementing career education in their classroom" at the end of the year than at the beginning of the year.

These preceding statements are those on which the program obviously had some impact. During the course of the year, participation in the program must have influenced the degree to which they agreed or disagreed with the statement as intended by the project staff.

On the other hand, there are about five statements on which the respondents showed no growth in a favorable direction. These are statements which the project staff obviously tried to influence and for which the project staff must direct more attention to in order to affect. Nearly 33% of the respondents did not believe that "every student should graduate from high school with a salable skill that he or she could use on a job." Neither were they in strong agreement that "elementary school would be better if centered around the world of work" (more than 50% did not agree to this statement). In addition, nearly 33% believed that "junior high school is early enough to start career education programs." And, finally, nearly 30% of the respondents felt that "there are areas in the school program more important than career education that need our time, money, and effort." For these respondents (approximately 25 or 30% of all respondents), the Project needs to carry out activities which will reinforce that a comprehensive career education program begins in the very earliest grades, has as much priority as other areas in the curriculum, and is necessary in order to equip graduates with employment skills.

In summary, the Project obviously began with a group of participants who believed in the basic principles of career education. In one way, it could be said that the Project staff adequately screened and recruited those individuals who could work best with the objectives of the program. In this way, the model program was given the benefit of the talent and energies of those people who would best carry out their intended career education roles.

EFFECTIVENESS OF THE BUSINESS/INDUSTRY/EDUCATION INSTITUTES

In March, 1976, the Project staff carried out a three-session Business/Industry/Education Institute. On each of three different days, three firms opened their companies to participating project teachers. The three firms were Black and Decker Manufacturing Company, McCormick and Company, Inc., and the Noxell Corporation. The primary objectives of the Institute were to: 1) improve communication and understanding between educators and business people, 2) increase awareness of educators to the world of business with particular emphasis on career opportunities, education and training requirements, job enrichment, social responsibilities and involvements, and understanding profits, and 3) develop the basis for future two-way exchanges between educators and business people. In total, 40 project participants participated in one or more sessions of the Institute.

A short questionnaire was developed by the Project staff and administered to each of the participants after each session. The questionnaire was designed to measure the participants' views of the overall value of the session, the quality of the presentation, the helpfulness of career education information provided, and the effectiveness of the presentation in meeting the three overall objectives of the Institute.

In terms of overall value, on the average about 80% of the participants found the three sessions of high or very high value to them. Individually, the three companies were ranked the following order: McCormick, Black and Decker, and Noxell.

In terms of quality of the presentation, on the average about 76% of the participants said that "the presentations were well prepared." In

order of preference the companies were: Black and Decker, McCormick and Noxell.

The presentations were designed to offer the participants career education information. Approximately 86% of the participants said that the information provided was very helpful. In order of preference, the companies were: McCormick, Black and Decker, and Noxell.

Finally, in terms of their ability to meet the Institute's three major objectives, approximately 92% of the participants found the presentation satisfactory to a highly significant degree. The companies were ranked in the following order: McCormick, Black and Decker, and Noxell.

The three companies, on the average, seemed to do best in their fulfillment of Institute objectives than in their overall value, next in their presentation, and finally in the career education information they provided. In terms of the quality of the three companies, both Black and Decker and McCormick were rated very favorably in all four measurement areas, being rated similarly at the higher end of scores. On the other hand, the Noxell Corporation appeared to be significantly less successful in meeting the high rating achieved by the other two companies.

In summary, PSE, in reviewing the evaluation material, sees the Institute as a desirable way in meeting the important objectives set for it. The participants, on the whole, find it a valuable event. The only recommendation to the staff is that they pay special attention to the planning of any future sessions conducted by the Noxell Corporation since it seemed to be less able to meet as high a standard as did the other two companies.

OVERALL PROJECT PERFORMANCE

The PSE staff made a number of site visits to the Baltimore County Project and, during the course of these visits, interviewed and observed Project participants. Based on the information collected, the following observations can be made reflecting some of the major strengths of the entire effort and some of the areas of performance that need further development.

Project Management

The project director received a great deal of support and admiration from the school participants. In particular, they pointed out her outstanding leadership qualities and ability to coordinate and supervise a project as complex as the Baltimore County Career Education Project. The fact that many different schools, with many different personalities and organizational patterns needed to be brought together to serve the best interests of career education was a task of major undertaking. The quality of leadership provided by the director in meeting the demands of these environments was exceptional. In order to facilitate the Project management's ability for closer monitoring and more frequent visits to the school sites, it was recommended that the project director be aided by a full-time professional assistant.

Cluster Councils

There was overwhelming support of the cluster council concept. The idea of having a variety of teachers working together under the direction of a council leader was thought to be an effective means in promoting advocates within the school for career education while at the same time

establishing a mechanism for dissemination to other teachers not involved in the council. Giving individual teachers a feeling of responsibility for the execution of a career education program by being members of a specific council designed to do so was thought to be an effective procedure. The council leader in consort with the council members was felt to be a more effective technique in bringing about change in the entire school than the traditional approach of relying on one person in charge. It was clear to the respondents that those teachers who were most involved in career education were those who were members of a council. The respondents did point out, however, that there needed to be more study and trial use of different ways/techniques which council members could use to be more effective in spreading the implementation of career education through their schools. Also, it was pointed out that cluster leaders needed more time to do their job in promoting and implementing of career education, particularly in working with individual council members and new teachers. During the year, the cluster leaders had no specified free time to carry out their job as cluster leaders. It was recommended that a specific time be allotted each day for carrying out specific functions. A final recommendation was that the council members reflect a more varied cross-section of the staff in the schools. There needed to be more emphasis on involving the traditional academic areas of the junior high school and senior high school curricula. Also, it was felt to be possible more advantageous if, in a designated cluster of schools, all feeder schools to the junior high and senior high school be included in the cluster.

Cluster Aides

The cluster aides received outstanding support from the participants. They were seen as resourceful, imaginative, productive, and understanding assistants and co-workers. They carried out tasks in the school that were indispensible for accomplishing the major objectives of the project. Their list of duties appeared to be endless. They were seen as a primary link from one school to another in each of the clusters. Some of the functions carried out by cluster aides which seem to be particularly valuable to the respondents included operation of a minicareer resource centers, the catalogueing and reviewing of products, identification and recruitment of speakers, the arrangement of field trips, the surveying of parents for support and services, previewing materials for possible purchase, demonstrating new materials to teachers, and so on. In essence, they were seen as both critical to maintaining linkage or liaison with other schools, and to facilitating specific career education instruction by carrying out the tasks listed above. One area of training desired by the aides was for more instruction in the identification and use of specific materials and products in career education.

Business/Industry/Education Institute

There was generally positive feeling toward the Institute by those who attended one or more of the three available sessions. The participants generally endorsed the availability of more institutes during the year, covering a wider range of occupational interests and, most important, making them available to more teachers.

Training

The in-service workshops designed and/or carried out by the Project management were rated very high in terms of effectiveness. In one elementary school, the in-service workshop carried out for credit during after school hours was seen as an efficient way for getting teachers enthusiastic about career education. The workshop was particularly effective in stimulating the development of specific activities which teachers could carry out in their own classrooms. In this particular elementary school, most of these activities were produced for and shared with the entire staff. Also, the workshop led to the compilation of a bank of human resources which could be used in delivering instructions. Having designed the course, project management left much of the specific instruction in the hands of the local school staffs. This was seen by the staffs as an efficient and effective way in carrying out the training.

As could be expected, most of the respondents wanted more training. They particularly pointed to the need for training at different levels in order to accommodate their varying backgrounds in career education. Junior high school and senior high school staffs wanted more specific training in techniques and strategies of how to infuse career education into their discipline areas. They recommended giving credit for after school training as an effective approach. They pointed to the need for more intensive training career education, far beyond the awareness level. In particular, the need for training administrative staff personnel was seen as critical. For example, the five area Assistant Superintendents, the Associate Superintendents, the Deputy Superintendent, the Superintendent, and principals, were seen as in need of basic career education awareness training. This was necessary, it was pointed out, in order to get their support and endorsement of specific necessary activi-

ties to be carried out in getting the program implemented throughout the system.

It was also pointed out that it would be most advantageous if the professional study days available throughout the system were focused on career education. To do this, the various supervisors of curriculum areas would need to see the endorsement and encouragement from administrators above them. Participants generally agreed that the use of more consultants throughout the year would be valuable. They wanted more exposure to more people with different ideas and approaches to career education.

Mini-Career Resource Centers

There was generally favorable reaction to the resource center set-up in each of the schools. The materials represented good cross-sections of both print and audio-visual products. The cluster aides did an excellent job in keeping up to date with latest publications and in making the centers as attractive as possible to the school staffs. In the elementary schools particularly, it was pointed out that teachers needed some free time during the day to get to the center and make use of its products.

Administrative Support

The need for more administrative support, both at the central office level as well as at the building level, was voiced by most participants. In particular, they pointed to the need for some accountability by the district leadership in terms of policies which affect the work of a project such as the one at hand. The example used to illustrate this concern was that of the need to use substitute days for training purposes, an idea that could

not be acted on this past year because of Board policy. It was also generally agreed that there was a need for a central office position for the area of career education, thereby setting up an advocate for this particular curriculum focus. At the building level, it was pointed out that principals should demonstrate their interest and support for career education in order to get their staffs involved in the program. Particularly important, it was pointed out, were the department chairmen who influence to a large extent the roles their teachers carry out. Department chairmen meetings at the senior high level have proven to be very effective in stimulating teachers to review and try out career education material.

Linkage

One of the basic concepts of the entire program was the development of appropriate sequential linkage from one school to another in each of the five clusters. It was generally agreed by the participants that the linkage function was not carried out to the extend intended and needed to be strengthened in a number of ways. First, staff found very few opportunities to meet with staff members from other schools. Even the cluster council leader found this a difficult task. The cluster aides were seen as somewhat helpful, acting as"bumble-bees" by passing information back and forth. However, this was not seen as a sufficient enough mechanism to develop strategies and approaches necessary for linking the schools with one another in terms of such things as curriculum practice, staff development procedures, materials sharing, and so on.

Respondents also emphasized that linkage opportunities needed to be created across similar grade levels. That is, elementary staff wanted more

interaction with elementary staffs from other schools. A number of respondents pointed out that linkage meetings by grades could also be very valuable, particularly at the junior high and senior high levels.

Scope and Sequence

During its previous work in career education, Baltimore County had developed a number of key documents and materials to foster the growth of career education in the schools. A prime example of this is Life Career Development, a K-12 career education conceptual model designed to guide teachers, administrators, and counselors as they carry out career education activities. The guide is particularly useful in showing teachers ways to infuse career education throughout the existing curriculum topics. It specifies career education concepts, objectives, and suggests strategies across the various grade levels. Those staff members who had seen and/or used the guide found it extremely valuable. However, it is the opinion of PSE that Life Career Development should be more widely circulated to the cluster council participants and that special attention be given to it during training workshops. Teachers need to understand how the guide has and can continue to serve as the scope and sequence for career education in Baltimore County, a product which they said many times was needed.

At the junior high and senior high levels, the teaching staff called for more organized time to refocus their curricula. Development work among teachers of different disciplines was seen as particularly important for cross-referencing instruction within a single grade.

SUMMARY

The "Introduction" of this report stated the primary goal of the Project and listed a number of specific objectives. Each of these objectives is presented below with PSE's assessment of how well the Project met the objective.

Developing a Core of Leaders in Career Education from Each of 15 Schools

Cluster councils existed in all 15 schools participating in the Project. Of course, the degree of activity by the councils and their individual members varied from school to school. However, on the data collected by PSE from respondents through both questionnaires and interviews, it appears that a majority, nearly 75% of the schools, had created school leaders in career education. By this we mean individuals who understood their role to be implementing career education within their own instructional environment as well as influencing colleagues to try out and institutionalize career education practices in their classrooms. In a group meeting of Council leaders, the PSE staff gathered a great deal of information about specific activities and accomplishments in most schools which reflected leadership performance. It is our opinion that the 15 schools participating in the Project, on the whole, have staff who are convinced of the value of career education and have begun to develop a set of skills for influencing others to become participants and advocates.

Increasing the Relationship Between School and Community Through Business/Industry/Education Institutes

The Project was successful in recruiting three different industries to conduct one-day Institutes for the school staffs. The Institutes were designed

by both the Project staff and the industry representatives. In terms of the value of Institute topics, the preceding section on the effectiveness of the Institutes pointed to the extraordinary success of the three-day event through respondent reactions.

Fostering Career Education Implementation Through Mini-Resource Centers in Each School

Mini-resource centers were established, to some degree, in each school. Of course, the variety and scope of each center differed tremendously. In some settings, where the cluster council, the council leader, and the cluster aides were particularly active and aggressive, these centers appeared to be better staffed and better equipped. The cluster aides, particularly, did an outstanding job in setting up the centers and in selecting and reviewing materials to be included. Centers which appeared to be more outstanding were those that had a good variety of materials and contained materials which the local staffs had developed themselves. There was an excellent mixture, in those centers observed, of both print and non-print products. The mini-resource center concept has been well established throughout the Project schools.

Providing Opportunities for School Staffs to Articulate with Their Feeder Schools

This is the one objective where Project performance did not meet levels of expectation. Few opportunities were available to school staffs to meet with staffs from their feeder schools. The cluster aides represented the major liaison between schools but, of course, this was not the intent of this objective in total. The Project needs to find ways, perhaps administrative changes, which would set aside specific times for staffs from dif-

ferent schools to gather together to discuss their work and plan the future. Not only does this have to be done within a cluster of schools, but, of course, across schools of similar grade levels throughout the county.

Identifying and Compiling Procedures and Materials for Increasing Teacher Use and Student Learning

The Project had a number of ways of identifying these procedures and materials. First, the cluster council leaders held a responsibility for documenting techniques and approaches which seemed particularly useful and effective in getting career education spread throughout their schools. Also, the cluster aides did an outstanding job in identifying and compiling materials which came into their mini-resource centers and for which they solicited teacher reactions. Also, teachers themselves gave many valuable reactions to the materials they tried out in their classrooms. PSE is uncertain as to the final compilation of these assessments, since that was not a major task of the third-party evaluation. Therefore, we refer to the Project staff members themselves to fully explicate the accomplishment of this objective.

Implementation and Linkage Goals

The major product of the Baltimore County Project was the development of an implementation and linkage guide. In reviewing this guide, "Infusing Career Education Through Cluster Councils," PSE found it to be an extremely well designed and comprehensive document. It was extremely readable and appropriate for its target population--school instructional staffs and administrators. The material contained in the guide provides a full overview of Project focus areas with recommendations of strategies and activities to pursue. It is an extremely good description of how cluster organization

as a strategy for implementing career education can be effective.

Finally, in reviewing the findings and conclusions presented through this report, PSE can confidently attribute to the Baltimore County Project much credit in accomplishing many, if not most, of its objectives for the 1975-1976 period. Career education, of course, is not new to Baltimore County but the county's focus on a new organizational pattern for spreading career education during one school year has enhanced career education efforts throughout the system substantially. Not only is there a healthy supply of materials and products for teachers to pick up and use, but now, there is also a firm base of staff support accompanied with specific strategies and approaches for wide scale implementation. It is an outstanding accomplishment to have had 15 cluster leaders involved with 397 teachers who infused career education concepts and ideas to more than 10,000 students.